

DESCRIPTIONS OF THREE NEW FISHES FROM
PORT JACKSON.

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SCYLLIUM ANALE. sp. nov.

The space between the eyes is greater than that between the tip of the snout and the anterior margin of either eye. Nasal valves not confluent, destitute of a cirrus; nostrils nearer to the mouth than to the snout. A short labial fold round either angle of the mouth. Teeth in several rows in both jaws, each with a short lateral cusp on either side; behind those of the lower jaw is a band of short fringed cirri. Gill-openings of moderate size, the last smallest; the two last situated above the base of the pectoral. The first dorsal has its origin at the middle of the total length, and is equal in size to the second. The anal ends rather behind the origin of the second dorsal, than which it is much larger, its base being $1\frac{2}{3}$ of the base of that fin; and the interspace between the end of its base and the origin of the caudal is but $\frac{2}{3}$ of the base itself. Ventrals a little in advance of the first dorsal; their outer and posterior margins form a very acute angle. Lower caudal lobe large; posterior lobe obliquely truncated behind.

Body and fins stone-color; the upper parts are ornamented with nine largesub-circularbrown blotches, each of which has a marginal series of round deep-brown spots, and often a central spot. The sides are similarly, but more faintly blotched and spotted; these lateral blotches being for the most part placed opposite to the interspaces between those of the dorsal. The two cranial blotches are drawn out laterally, and are also joined together by a broad densely spotted band. The lower parts are dirty white.

The example, from which the above description was taken, was trawled in Middle Harbour on the 22nd ult., and is an adult male, measuring $22\frac{1}{2}$ inches. The species under consideration bears considerable similarity to the *Scyllium bürgeri* of Müller and Henle, but the greater size of the spots, the pattern of coloration, and the much larger and differently shaped anal fin distinguish it from that species at a glance.

Registered number of type in the Australian Museum, B. 8,447.

HELIASTES IMMACULATUS. sp. nov.

D. 13/17. A. 2/14. V. 1/5. P. 18. C. 15. L. lat. 28. L. trans. 4/12.

Length of head about $\frac{1}{4}$, of caudal fin $4\frac{1}{3}$ to $4\frac{2}{3}$, height of body $2\frac{2}{5}$ in the total length. Diameter of the eye $\frac{1}{3}$ of the length of head, equal to that of the snout, and of the interorbital space, which latter is convex and rather swollen. Jaws equal. The maxilla does not quite reach to the anterior margin of the eye; its front edge is strongly arched inwards. Greatest width of the pre-orbital half a diameter of the eye. Teeth in the jaws in a single series, conical. Dorsal fin commences somewhat in front of the vertical from the end of the operculum; its 4th spine is the longest, about $\frac{1}{2}$ the length of the head; the 5th to 9th rays longest, much longer than the spines. The anal commences beneath the 12th dorsal spine; its second spine is stronger and longer than any of the dorsal spines. Outer ventral ray elongate, longer than the head, and reaching to behind the anal spines. Pectorals rather less than length of head. Caudal forked. The scales extend in front of the eyes, and for more than half the height between the dorsal spines: eight longitudinal series on each cheek.

Ground color pale olive-green above, silvery below, the sides with a bronzy wash. The scales on the lateral line are darker, giving an appearance of a faint band. The vertical fins have a violet tinge, and are narrowly edged with pale blue.

The description is taken from a specimen trawled on Shark Reef, where several examples have been obtained during the last two months; none of them exceed six inches in length. Registered number of type in the Australian Museum collection, B. 7,452.

PEMPHERIS LINEATUS. sp. nov.

B. VII. D. 5/12. A. 3/35. V. 1/5. P. 17. C. 17. L. lat. 58.

Length of head $4\frac{1}{10}$, of caudal fin $4\frac{1}{2}$, height of body below first dorsal spine $2\frac{9}{10}$ in the total length. Eyes very large and prominent, diameter of each $\frac{1}{2}$ of the length of head. Snout short, $\frac{3}{7}$ of diameter of eye, its profile concave. Interorbital space rather convex, $\frac{1}{2}$ of diameter of eye; jaws equal when closed; cleft of mouth oblique; maxillary reaches to behind middle of eye. A moderately strong spine, with a pair of smaller ones on either side, at the pre-opercular angle. Both jaws with narrow bands of villiform teeth, the outer row of which is enlarged; a few much stronger teeth, on either side of the symphyses, and pointing directly forwards; narrow bands on the palatines, and an obtusely-angular band on the vomer. Dorsal spines weak, the last the longest, not nearly so long as the anterior rays, and equal to the distance between the tip of the snout and the hind margin of the eye: anal commences beneath the 9th dorsal ray; its rays are longest anteriorly. The pectoral fin is scarcely the length of the head. Ventrals reach to beyond the origin of the anal fin: caudal forked. Scales of the body moderate; those of the head, and back to the origin of the dorsal, small; anal and caudal scaly. Lateral line with an upward curve to beneath the dorsal spines, whence it runs straight with a downward slant to the fork of the caudal.

Bright golden-brown washed with purplish-bronze; nine lighter-colored longitudinal narrow bands on the sides, parallel to the lateral line.

A single specimen measuring $7\frac{1}{2}$ inches, trawled on Shark Reef during the month of July forms the type of this handsome and very distinct species. Registered number in the Australian Museum collection, B. 7,334.